



July 2000

ONDCP

Drug Policy Information Clearinghouse

FACT SHEET

<http://www.whitehousedrugpolicy.gov>

1-800-666-3332

## MDMA (Ecstasy)

As part of ongoing research, the White House Office of National Drug Control Policy (ONDCP) Drug Policy Information Clearinghouse has prepared this fact sheet to summarize current information on the effects, prevalence estimates, trafficking, and production of the designer drug MDMA (3, 4-methylenedioxymethamphetamine). The fact sheet also presents current legislation and law enforcement efforts to control the drug.

### Background Information

MDMA or “ecstasy” is a synthetic drug with both psychedelic and stimulant effects. The drug was created by a German company in 1912 to be used as a possible appetite suppressant. In the past, some therapists used the drug to facilitate psychotherapy in the United States. Currently, MDMA is predominantly a “club drug” and is commonly used at all-night dance parties known as “raves.”

### Effects

MDMA is a stimulant that has psychedelic effects that can last between 4 and 6 hours and is usually taken orally in pill or tablet form. The psychological effects of MDMA include confusion, depression, anxiety, sleeplessness, drug craving, and paranoia. Adverse physical effects include muscle tension, involuntary teeth clenching, nausea, blurred vision, feeling faint, tremors, rapid eye movement, and sweating or chills. There is also an extra risk involved with MDMA ingestion for people with circulatory or heart disease because of its ability to increase heart rate and blood pressure.

Rave party attendees who ingest MDMA are also at risk of dehydration, hyperthermia, and heart or kidney failure. These risks are due to a combination of the drug’s stimulant effect that allows the user to dance for long periods of time and the hot, crowded atmosphere of rave parties. The combination of crowded all-night dance parties and MDMA use has been reported to cause fatalities.

Long-term brain injury is also possible when a user ingests MDMA. Research has shown that MDMA can cause damage to the parts of the brain that are critical to thought and memory. A recent study sponsored by the National Institute on Drug Abuse (NIDA) showed that monkeys that were given doses of MDMA for 4 days suffered damage to the brain 6 to 7 years later. This study supported earlier research, sponsored by NIDA, done on humans who had taken MDMA and scored lower on memory tests.

Other possible effects of MDMA include development of an acnelike rash, damage to the liver, and destruction of serotonin-producing neurons that play a role in regulating aggression, mood, sleep, and sexual activity.

In 1994, hospitals participating in the Drug Abuse Warning Network (DAWN) program reported 250 MDMA-related emergency department mentions. This number rose to 637 in 1997 and jumped again in 1998 to 1,142 MDMA-related mentions.

### Prevalence Estimates

According to studies measuring drug use in the United States, MDMA use is heaviest among America’s youth and young adults. The U.S. Department of Health and Human Services’ National Household Survey on Drug Abuse found that 5.0% of 18- to 25-year-olds surveyed in 1998 had used MDMA at least once in their life.

**Percentage of MDMA Use Among U.S. Population by Age Group, 1996–1998**

Age Group	1996	1997	1998
12–17	1.1%	1.3%	1.6%
18–25	4.2	4.6	5.0
26–34	2.5	3.1	2.6
35 and Older	0.7	0.5	0.5
Total Population	1.5	1.5	1.5

Source: U.S. Department of Health and Human Services.

The University of Michigan's Monitoring the Future Study showed that MDMA use among high school students was up in 1999. The study showed that 5.8% of high school seniors surveyed in 1998 had used MDMA at least once in their lifetime; this percentage rose 2.3 percentage points in 1999 to 8.0%.

Percentage of High School Seniors Using MDMA by Frequency, 1998–1999			
Frequency of Use	1998	1999	% Change
Lifetime	5.8%	8.0%	+2.3
Annual	3.6	5.6	+2.0
30 Days	1.5	2.5	+1.0
Daily	0.2	0.1	-0.1
Source: University of Michigan.			

The Monitoring the Future Study also measured perceived harmfulness, disapproval of use, and availability of MDMA by high school seniors. The study found that 35% of seniors in 1999 thought that trying MDMA once or twice was a great risk. A majority (82.1%) of high school seniors in 1999 disapproved of trying MDMA once or twice. More than one-third (40.1%) of high school seniors in 1999 said MDMA was fairly easy or very easy to obtain.

Data on MDMA use by college students and young adults (18–25 years old) was also captured in the Monitoring the Future Study. During 1998, 6.8% of college students had tried MDMA at least once in their lifetime. Among young adults the percentage having tried MDMA in their lifetime was 7.2% in 1998.

Percentage of College Students and Young Adults Using MDMA by Frequency, 1997–1998						
Frequency of Use	College Students			Young Adults		
	1997	1998	% Change	1997	1998	% Change
Lifetime	4.6%	6.8%	+2.2	5.1%	7.2%	+2.1
Annual	2.4	3.9	+1.5	2.1	2.9	+0.8
30 Days	0.8	0.8	0.0	0.6	0.8	+0.1
Source: University of Michigan.						

## Trafficking, Production, and Enforcement

The majority of MDMA found in the United States comes from Europe and is thought to be trafficked by Israeli organized crime syndicates. The Israeli syndicates have forged relationships with West European traffickers and have gained control over the majority of the European market. These trafficking organizations are capable of manufacturing and

moving enormous amounts of MDMA. The Israeli syndicate employs many methods to traffic MDMA, including commercial flights, express mail services, and air-freight shipments. Often manufacturers send several couriers at one time; this is known as the “shotgun method.”

The number of MDMA seizures reported in the United States by the Drug Enforcement Administration (DEA) has increased greatly, with seizures of 10,000 or more tablets becoming increasingly common. In 1993 there were 196 seizures of MDMA tablets. In 1999, the DEA seized more than 950,000 MDMA tablets. In February 2000, the DEA, together with New York State authorities, seized 300,000 MDMA tablets worth \$7.5 million. This was the result of a probe into a drug-trafficking organization that distributed pills to buyers in California, Florida, Massachusetts, New York, Ohio, Pennsylvania, and Rhode Island. The organization obtained the MDMA from clandestine labs in Belgium, France, Germany, and the Netherlands. It arranged air couriers to ship the drugs to the United States and then sold them to mid-level dealers across the Nation. The U.S. Customs Service has also reported a large increase in the number of MDMA tablets seized. In FY 1999 approximately 3.5 million doses were seized; this was nearly 7 times greater than 1998's figure. In December 1999 the U.S. Customs Service seized about 700 pounds of MDMA worth a street value of \$30 million.

Although most MDMA is produced in clandestine laboratories throughout Europe, some labs have been identified and seized in the United States. Seven MDMA labs were seized in 1998 with at least one capable of producing large amounts (20 kilograms per batch) of MDMA. In early 1999, five clandestine MDMA-producing labs were seized by DEA. Making MDMA is fairly simple, and recipes for manufacturing the designer drug can be found on the Internet.

A single 300 milligram (mg) tablet usually contains between 75 and 125 milligrams of pure MDMA. The tablets often are branded with logos by the traffickers to distinguish their product. Common logos are butterflies, lightning bolts, stars, and clovers. A single pill of MDMA ranges in price from \$20 to \$30. Pills and tablets are often sold at bars, nightclubs, and rave parties.

## Legislation

MDMA is a Schedule I synthetic, psychoactive drug under the Controlled Substances Act (CSA), Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970. The chemicals used to manufacture MDMA are List 1 Chemicals under the CSA, primarily available for use in research or industrial purposes, and are not readily available to the general public.

## Conclusion

The synthetic drug MDMA is commonly found at rave parties and nightclubs frequented by youth and young adults, whose use of the drug has increased. The damaging effects of the drug can be long lasting and are possible after a relatively small number of uses. The trafficking of MDMA is increasing at an alarming rate with multiple agencies reporting large seizures of the drug.

## Street Terms

Common slang terms for MDMA are “ecstasy,” “Adam,” and “XTC.” Other terms for MDMA are given in the following box.

Slang Terms		
B-Bombs	Bens	Clarity
Cristal	Decadence	Dex
Disco Biscuit	Essence	Eve
Go	Hug Drug	Iboga
Love Drug	Morning Shot	Pollutants
Scooby Snacks	Speed for Lovers	Sweeties
Wheels	X	

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This fact sheet was prepared by Guy Schmidt at the ONDCP Drug Policy Information Clearinghouse. The data presented are as accurate as the sources from which they were drawn. Responsibility for data selection and presentation rests with the Clearinghouse staff. The Clearinghouse is funded by the White House Office of National Drug Control Policy to support drug control policy research. The Clearinghouse is a component of the National Criminal Justice Reference Service. For further information about the contents or sources used for the production of this fact sheet or about other drug policy issues, call

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